

IN THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application.

1. (Canceled)

2. (Previously presented) A display device comprising a plurality of pixels arranged in a pixel portion including a plurality of pixel columns,

wherein at least four data lines extend in each one of the pixel columns, and

wherein the at least four data lines are connected to different data drivers .

3. (Previously Presented) A display device comprising:

a plurality of pixels arranged in a pixel portion including a plurality of pixel columns,

wherein each one of the pixel columns includes at least two data lines,

wherein the pixels each have a switching element and a light emitting element, and

wherein the switching element is connected to one of the at least two data lines.

4. (Currently Amended) A display device comprising:

a plurality of pixels arranged in a matrix pattern in a pixel portion, the matrix pattern having a plurality of pixel columns in which the pixels are arranged in a column direction;

a plurality of data lines extending in the column direction; and

a plurality of scanning lines extending in a row direction,

wherein the pixels each have a light emitting element,

wherein at least two data lines out of the plurality of data lines extend in each one of the pixel columns and one scanning line out of the plural scanning lines extends in each one row,

wherein at least one scanning driver is provided to select at least two scanning lines out of the plurality of plural scanning lines simultaneously, and

wherein at least two data drivers are provided to simultaneously supply signals to at least two pixels selected out of the plurality of pixels through the at least two data lines extending in each one of the pixel columns.

5. (Previously Presented) A display device comprising:

a plurality of pixels arranged in a matrix pattern in a pixel portion, the matrix pattern having a plurality of pixel columns in which the pixels are arranged in a column direction;

at least two data lines placed in each one pixel column;

one scanning line placed in each one row; and

a plurality of pixels placed at portions where the data lines and the scanning line intersect with each other to form a matrix pattern, the pixels each having a light emitting element,

wherein at least one scanning driver is provided to select at least two scanning lines out of the plurality of scanning lines simultaneously, and

wherein at least two data drivers are provided to simultaneously supply signals to at least two pixels selected out of the plurality of pixels through the at least two data lines extending in each one pixel column.

6. (Previously presented) A display device according to claim 4, wherein the at least two data drivers each have a plurality of shift registers and sampling circuits, and the shift registers

each operating independently, each of the sampling circuits being associated with one of the shift registers.

7. (Previously presented) A display device according to claim 5, wherein the at least two data drivers each have a plurality of shift registers and sampling circuits, and the shift registers each operating independently, each of the sampling circuits being associated with one of the shift registers.

8. (Previously presented) A display device according to claim 4, wherein the at least two data drivers each have a plurality of shift registers, first latches, second latches, and sampling circuits, the shift registers each operating independently, each of the first latches, each of the second latches, and each of the sampling circuits being associated with one of the shift registers.

9. (Previously presented) A display device according to claim 5, wherein the at least two data drivers each have a plurality of shift registers, first latches, second latches, and sampling circuits, the shift registers each operating independently, each of the first latches, each of the second latches, and each of the sampling circuits being associated with one of the shift registers.

10. (Original) A display device according to claim 3, wherein the light emitting element comprises an OLED.

11. (Original) A display device according to claim 4, wherein the light emitting element comprises an OLED.

12. (Original) A display device according to claim 5, wherein the light emitting element comprises an OLED.

13. (Currently amended) A display device according to claim 4, wherein the plurality of ~~plural~~ pixels, the at least one scanning driver, and the at least two data drivers are formed over the same insulator.

14. (Currently amended) A display device according to claim 5, wherein the plurality of ~~plural~~ pixels, the at least one scanning driver, and the at least two data drivers are formed over the same insulator.

15. (Original) A display device according to claim 4, wherein the pixels each have a driving transistor, a switching transistor, and a capacitor, the driving transistor controlling a current value of the light emitting element, the switching transistor controlling input of a video signal into its pixel, and the capacitor holding the video signal.

16. (Original) A display device according to claim 5, wherein the pixels each have a driving transistor, a switching transistor, and a capacitor, the driving transistor controlling a current value of the light emitting element, the switching transistor controlling input of a video signal into its pixel, and the capacitor holding the video signal.

17. (Original) A display device according to claim 4, wherein the pixels each have a driving transistor, a switching transistor, a capacitor, and an erasing transistor, the driving transistor controlling a current value of the light emitting element, the switching transistor controlling input of a video signal into its pixel, the capacitor holding the video signal, and the erasing transistor discharging electric charges that are held in the capacitor.

18. (Original) A display device according to claim 5, wherein the pixels each have a driving transistor, a switching transistor, a capacitor, and an erasing transistor, the driving transistor controlling a current value of the light emitting element, the switching transistor controlling input of a video signal into its pixel, the capacitor holding the video signal, and the erasing transistor discharging electric charges that are held in the capacitor.

19. (Currently amended) A driving method of a display device that has a plurality of pixels arranged in a matrix pattern in a pixel portion, the matrix pattern having a plurality of pixel columns in which the pixels are arranged in a column direction, a plurality of data lines in the column direction, a plurality of scanning lines in a row direction, wherein the pixels each have a light emitting element and a TFT, wherein each of the TFTs is electrically connected to different data lines in the ~~the~~ same pixel column, at least two data lines out of the plurality of data lines extending ~~extended~~ in each one of the pixel columns, and one scanning line out of the plurality scanning lines extending in each one row, comprising the steps of:

dividing one frame period into a plurality of sub-frame periods,

dividing each of the plurality of ~~plural~~ sub-frame periods into a writing period and a light emission period, and

in the writing period, selecting two scanning lines simultaneously by at least one scanning driver, and ~~whereas~~ simultaneously supplying signals by the at least two data drivers to at least two pixels selected out of the plurality of pixels through the at least two data lines extending in each one of the pixel columns.

20.(Currently amended) A driving method of a display device that has a plurality of pixels arranged in a matrix pattern in a pixel portion, the matrix pattern having a plurality of pixel columns in which the pixels are arranged in a column direction; at least two data lines placed in each one of the pixel columns, one scanning line placed in each one row, and the plurality of pixels placed at portions where the data lines and the scanning line intersect to each other to form the matrix pattern, wherein the pixels each have a light emitting element and a TFT, where in the TFTs are electrically connected to different data lines in the ~~the~~ same pixel column: comprising the steps of:

dividing one frame period into a plurality of sub-frame periods,

dividing each of the plurality of ~~plural~~ sub-frame periods into a writing period, a light emission period, and an erasure period, and

in the writing period, selecting two scanning lines simultaneously by at least one scanning driver, and ~~whereas~~ simultaneously supplying signals by the at least two data drivers to at least two pixels selected out of the plurality of pixels through the at least two data lines extending in each one of the pixel columns.

21. (Currently amended) A display device comprising:

a plurality of data lines and a plurality of scanning lines,

a plurality of pixels;

at least first and second pixels arranged in the [[a]] same column direction;

the first pixel comprising:

a first switching transistor;

a first driving transistor;

a first pixel electrode;

the second pixel comprising:

a second switching transistor;

a second driving transistor;

a second pixel electrode

wherein a first data line of the plurality of data lines is electrically connected to the first switching transistor;

wherein a second data line of the plurality of data lines is electrically connected to the second switching transistor;

wherein a first scanning line of the plurality of scanning lines is electrically connected to the first switching transistor;

wherein a second scanning line of the plurality of scanning lines is electrically connected to the second switching transistor; and

wherein the pixels each a light-emitting element.

22 (Previously Presented) A display device according to claim 21, wherein the light emitting element comprises an OLED.

23. (Currently amended) A display device comprising:

a plurality of pixels;

a plurality of data lines;

a plurality of scanning lines;

a first data driver for supplying a video signal to the pixels which are arranged in first to $m/2$ -th rows and in odd-numbered rows;

a second data driver for supplying a video signal to the pixels which are arranged in first to $m/2$ -th rows and in even-numbered rows;

a third data driver for supplying a video signal to the pixels which are arranged in $(m/2+1)$ -th to m -th rows and in odd-numbered rows;

a fourth data driver for supplying a video signal to the pixels which are arranged in $(m/2+1)$ -th to m -th rows and in even-numbered rows;

a first scanning driver for controlling the scanning lines extending in the first to $m/2$ -th rows;

a second scanning driver for controlling the scanning lines extending in the $(m/2+1)$ -th to m -th rows; and

at least two data lines of the plurality of data lines extending ~~extend~~ in each one pixel column.

24. (Currently amended) A display device comprising:

a plurality of pixels;

a plurality of data lines;

a plurality of scanning lines;

- a first data driver for supplying a video signal to the pixels arranged in a m -th row;
- a second driver for supplying a video signal to the pixels arranged in a $(m+1)$ -th row;
- a third data driver for supplying a video signal to the pixels arranged in a $(m+2)$ -th row;
- a fourth data driver for supplying a video signal to the pixels arranged in a $(m+3)$ -th row;
- a first scanning driver for controlling the scanning line extending in the m -th row;
- a second scanning driver for controlling the scanning line extending in the $(m+1)$ -th row;
- a third scanning driver for controlling the scanning line extending in the $(m+2)$ -th row;

and

- a fourth scanning driver for controlling the scanning line extending in the $(m+3)$ -th row.

25. (Currently amended) A display device comprising:

- a plurality of pixels;
- a plurality of data lines;
- a plurality of scanning lines;
- a first data driver for supplying a video signal to the pixels which are arranged in first to $m/4$ -th rows through the data lines;
- a second data driver for supplying a video [[vide]] signal to the pixels which are arranged in $(m/4+1)$ -th rows to $m/2$ -th row through the data lines;
- a third data driver for supplying a video [[vide]] signal to the pixels which are arranged in $(m/2+1)$ -th row to $3 \times m/4$ -th rows through the data lines;
- a fourth data driver for supplying a video [[vide]] signal to the pixels which are arranged in $(3 \times m/4+1)$ -th row to m -th rows through the data lines;

a first scanning driver for controlling the scanning lines extending in the first to $m/4$ -th rows;

a second scanning driver for controlling the scanning lines extending in the $(m/4+1)$ -th row to $m/2$ -th rows;

a third scanning driver for controlling the scanning lines extending in the $(m/2+1)$ -th row to $3 \times m/4$ -th row;

a fourth scanning driver for controlling the scanning lines extending in the $(3 \times m/4+1)$ -th row to m -th row; and

at least two data lines of the plurality of data lines extending in each column pixel.

26. (Previously Presented) A display device according to claim 24, wherein each of the first to fourth data drivers includes a plurality of shift registers which operate independently, a plurality of first latches, a plurality of second latches, and a plurality of sampling circuits.

27. (Previously Presented) A display device according to claim 25, wherein each of the first to fourth data drivers includes a plurality of shift registers which operate independently, a plurality of first latches, a plurality of second latches, and a plurality of sampling circuits.

28. (Previously Presented) A display device according to claim 26, wherein each of the first to fourth data drivers includes a plurality of shift registers which operate independently, a plurality of first latches, a plurality of second latches, and a plurality of sampling circuits.

29. (Previously Presented) A display device according to claim 23 ~~[[24]]~~, wherein the first scanning driver and the second scanning driver each includes a shift register and a buffer.

30. (Previously Presented) A display device according to claim 25, wherein the first to fourth scanning drivers each includes a shift register and a buffer.

31. (Previously Presented) A display device according to claim 26, wherein the first to fourth scanning drivers each includes a shift register and a buffer.

32. (Currently Amended) A display device according to claim 23 ~~[[24]]~~, wherein the plurality of pixels, the plurality of data lines, the plurality of scanning lines, the ~~plurality of first data driver drivers~~, the ~~plurality of second data driver drivers~~, the ~~plurality of third data driver drivers~~, the ~~plurality of fourth data driver drivers~~, the ~~plurality of first scanning driver drivers~~ and the ~~plurality of second scanning driver drivers~~ are formed over the ~~[[a]]~~ same insulator.

33. (Currently Amended) A display device according to claim 25, wherein the plurality of pixels, the plurality of data lines, the plurality of scanning lines, the ~~plurality of first data driver drivers~~, the ~~plurality of second data driver drivers~~, the ~~plurality of third data driver drivers~~, the ~~plurality of fourth data driver drivers~~, the ~~plurality of first scanning driver drivers~~ and the ~~plurality of second scanning driver drivers~~, the ~~plurality of third scanning driver drivers~~, and the ~~plurality of fourth scanning driver drivers~~ are formed over the ~~[[a]]~~ same insulator.

34. (Currently Amended) A display device according to claim 26, wherein the plurality of pixels, the plurality of data lines, the plurality of scanning lines, the ~~plurality of first data driver drivers~~, the ~~plurality of second data driver drivers~~, the ~~plurality of third data driver drivers~~, the ~~plurality of fourth data driver drivers~~, the ~~plurality of first scanning driver drivers~~ and the ~~plurality of second scanning driver drivers~~, the ~~plurality of third scanning driver drivers~~, and the ~~plurality of fourth scanning driver drivers~~ are formed over the ~~the~~ ~~[[a]]~~ same insulator.

35. (Previously Presented) The display device according to claim 2, wherein video signals are supplied to the pixels simultaneously through the at least four data lines.

36. (Currently amended) An electroluminescent display device comprising:
a plurality of pixels which are arranged in a matrix pattern; each including a transistor and a light-emitting element;
a plurality of data lines extending ~~extended~~ from a data driver;
a plurality of scanning lines extending ~~extended~~ from a scanning driver; and
a plurality of pixel columns;
wherein at least two data lines of the plurality of data lines are arranged in a first pixel column, and the at least two data lines electrically connected to different pixels which are arranged in the first pixel column; and
wherein at least two data lines of the plurality of data lines are arranged in a second pixel column, and the at least two data lines electrically connected to different pixels which are arranged in the second pixel column.

37. (Currently amended) A display device comprising:

a plurality of pixels which are arranged in a matrix pattern; each including a transistor;

a plurality of data lines extending ~~extended~~ from a data driver;

a plurality of scanning lines extending ~~extended~~ from a scanning driver; and

a plurality of pixel columns;

wherein at least four data lines of the plurality of data lines are arranged in a first pixel column, and the at least four data lines electrically connected to different pixels which are arranged in the first pixel column; and

wherein at least four data lines of the plurality of data lines are arranged in a second pixel column, and the at least four data lines electrically connected to different pixels which are arranged in the second pixel column.

38. (New) A display device according to claim 23, wherein each of the first to fourth data drivers includes a plurality of shift registers which operate independently, a plurality of first latches, a plurality of second latches, and a plurality of sampling circuits.

39. (New) A display device according to claim 24, wherein the first to fourth scanning drivers each includes a shift register and a buffer.

40. (New) A display device according to claim 24, wherein the plurality of pixels, the plurality of data lines, the plurality of scanning lines, the first data driver, the second data driver, the third data driver, the fourth data driver, the first scanning driver and the second scanning

driver, the third scanning driver, and the fourth scanning driver are formed over the same insulator.